

SERVICE MANUAL

A-X5000/A-X3000/A-X1000

DC Integrated Stereo Amplifier

NOTES

- PC boards shown viewed from parts side.
- Parts marked with *require longer delivery time.
- The mechanical parts with no reference number or no parts number in the exploded views are not supplied.
- As regards the resistors and capacitors, refer to the circuit diagrams contained in this manual.
- A Parts marked with this sign are safety critical components.
 They must always be replaced with identical components refer to the appropriate parts list and ensure exact replacement.
 - Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
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Effective: July, 1991 5704053900

1. SPECIFICATIONS

A-X5000 **Continuous Power Output:** RMS: 75 W + 75 W (20 - 20,000 Hz, 8 ohms, THD 0.009 %) 100 W + 100 W (20 - 20,000 Hz, 4 ohms, THD 0.025 %) DIN (1 kHz): 85 W + 85 W (8 ohms) 120 W +120 W (4 ohms) Dynamic Power Output (EIA) 100 W + 100 W (8 ohms) 150 W + 150 W (4 ohms) **Total Harmonic Distortion** 0.007 % (1 kHz, 8 ohms, continuous rated power output) 0.009 % (20 - 20,000 Hz, 8 ohms. continuous rated power output) 0.01 % (1 kHz, 4 ohms, continuous rated power output) 0.025 % (20 - 20,000 Hz, 4 ohms, continuous rated power output) Input Sensitivity/Impedance: Phono MM/MC: 2.5 mV $(47 \text{ kohms})/250 \mu V (100 \text{ ohms})$ CD, TUNER, AUX, TAPE 1/2/3: 150 mV/30 kohms Signal-to Noise Ratio (IHF-A): Phono MM/MC: 80 dB (2.5 mV)/ 67 dB (250 μV) Line: 101 dB Output Level/Impedance: TAPE 1/DAT, TAPE2, TAPE3: 150 mV/1 kohms Frequency Response: PHONO: 20 - 20,000 Hz, ±0.5 dB (RIAA) CD, TUNER, AUX, TAPE 1/2/3: 5 - 100,000 Hz, -3dB Tone Control: Bass: ±10 dB (100 Hz) Treble: ±10 dB (10 kHz) Loudness Contour: +8/+6 dB at 100 Hz/10 kHz Subsonic Filter: 15 Hz (6 dB/oct.) Muting: -20 dB Power Requirements/ Power Consumption: 115/230 V AC, 50/60 Hz, 700 W

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Improvements may result in feature and specification change without notice.
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240 V AC, 50 Hz, 860 W

435 x 155 x 354 mm

120 V AC, 60 Hz, 330 W (USA)

120 V AC, 60 Hz, 630 VA (Canada)

220 V AC, 50 Hz, 700 W (Europe)

(General Export)

(UK/Australia)

Dimension (W x H x D):

Weight (net): 10.5 kg

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A-X3000/A-X1000
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Continuous Power Output:
A-X3000:
 RMS: 60 W + 60 W
      (20 - 20,000 Hz, 8 ohms, THD
     0.02 %)
     75 W + 75 W
     (20 - 20,000 Hz, 4 ohms, THD
     0.04 %)
 DIN (1 kHz): 72 W + 72 W (8 ohms)
     100 W +100 W (4 ohms)
A-X1000:
 RMS: 40 W + 40 W
     (20 - 20,000 Hz, 8 ohms, THD
     0.02 %)
     50 W + 50 W
     (20 - 20,000 Hz, 4 ohms, THD
     0.04 %)
 DIN (1 kHz): 55 W + 55 W (8 ohms)
     72 W +72 W (4 ohms)
Dynamic Power Output (EIA)
A-X3000: 78 W + 78 W (8 ohms)
     115 W + 115 W (4 ohms)
A-X1000:58 W + 58 W (8 ohms)
     90 W + 90 W (4 ohms)
Total Harmonic Distortion
A-X3000: 0.008 % (1 kHz,
     8 ohms, continuous rated power
     (tuatuo
     0.02 % (20 - 20,000 Hz, 8 ohms,
     continuous rated power output)
     0.015 % (1 kHz, 4 ohms,
     continuous rated power output)
     0.04 % (20 - 20,000 Hz, 4 ohms,
     continuous rated power output)
A-X1000: 0.0085 % (1 kHz,
     8 ohms, continuous rated power
     output)
     0.02 % (20 - 20.000 Hz. 8 ohms.
     continuous rated power output)
     0.017 % (1 kHz, 4 ohms,
     continuous rated power output)
     0.04 % (20 - 20,000 Hz, 4 ohms,
     continuous rsted power output)
Input Sensitivity/Impedance:
     Phono: 2.5mV/47 kohms CD,
     TUNER, AUX, TAPE1/2:
     150 mV/30 kohms
     MIC: 0.6mV/47 kohms
Signal-to Noise Ratio (IHF-A):
     Phono: 72 dB (2.5 mW)
     Line: 101 dB
Output Level/Impedance: TAPE 1/DAT,
     TAPE2: 150 mV/1 kohms
Frequency Response: PHONO:
     20 -20,000 Hz, ±0.5 dB (RIAA)
     CD, TUNER, AUX, TAPE 1/2:
     5 - 100,000 Hz, -3dB
Tone Control: Bass: ±10 dB (100 Hz)
     Treble: ±10 dB (10 kHz)
Loudness Contour: +8/+6 dB at
     100 Hz/10 kHz
Subsonic Filter (A-X3000 only):
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15 Hz (6 dB/oct.)

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Muting (A-X300 only): -20 dB
Power Requirements/
 Power Consumption:
      115/230 V AC, 50/60 Hz, 550 W
      (A-X3000), 410 W (A-X1000)
      (General Export)
      120 V AC, 60 Hz, 240 W
      (A-X3000)
      180 W (A-X1000)(USA)
      120 V AC, 60 Hz, 460 VA
     (A-X3000), 340 VA (A-X1000)
      (Canada)
     220 V AC, 50 Hz, 550 W
     (A-X3000),
     410 W (A-X1000)(Europe)
     240 V AC, 50 Hz, 630 W
     (A-X3000),
     480 W (A-X1000)(UK/Australia)
Dimension (W x H x D):
     435 x 155 x 354 mm
Weight (net): 9.0 kg (A-X3000)
     7.8 kg (A-X1000)
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Improvements may result in feature and specification change without notice.

2. ADJUSTMENT AND CHECKS

AMPLIFIER SECTION

Condition

Power requirements: 120 V AC, 60 Hz (U.S.A/Canada) 220 V AC, 50 Hz (Europe)

115 V/230 V AC, 60 Hz/50 Hz (General Export) 240 V AC, 50 Hz (AUS. UK)

No signal

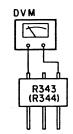
Input: Output load:

Idling current

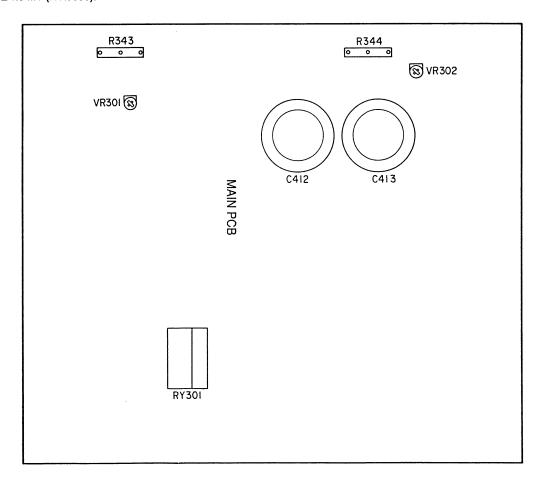
Set the Power switch to ON and wait for 5 minutes for preheating.
 Connect a DVM (Digital Voltage Meter) across R343

 (0.22 ohms x 2 = 0.44 ohms).

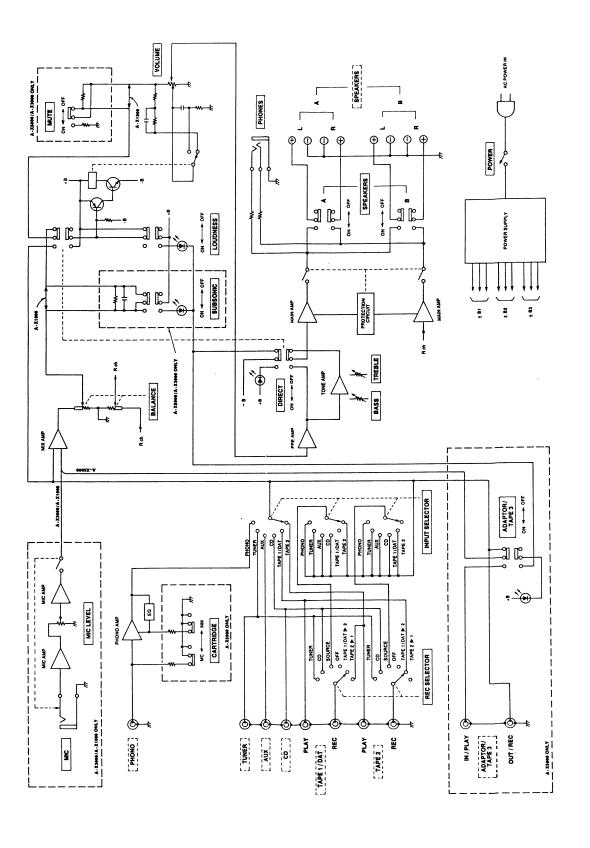
8 ohms



- 3. Adjust VR301 (L CH) so that the DVM reads 9 mV \pm 1.5 mV (A-X1000/A-X3000) or 6 mV \pm 1.5 mV (A-X5000).
- 4. Connect the DVM across R344 (0.22 ohms x 2 = 0.44 ohms). 5. Adjust VR302 (R CH) so that the DVM reads 9 mV \pm 1.5 mV (A-X1000/A-X3000) or $6 \text{ mV} \pm 1.5 \text{ mV}$ (A-X5000).



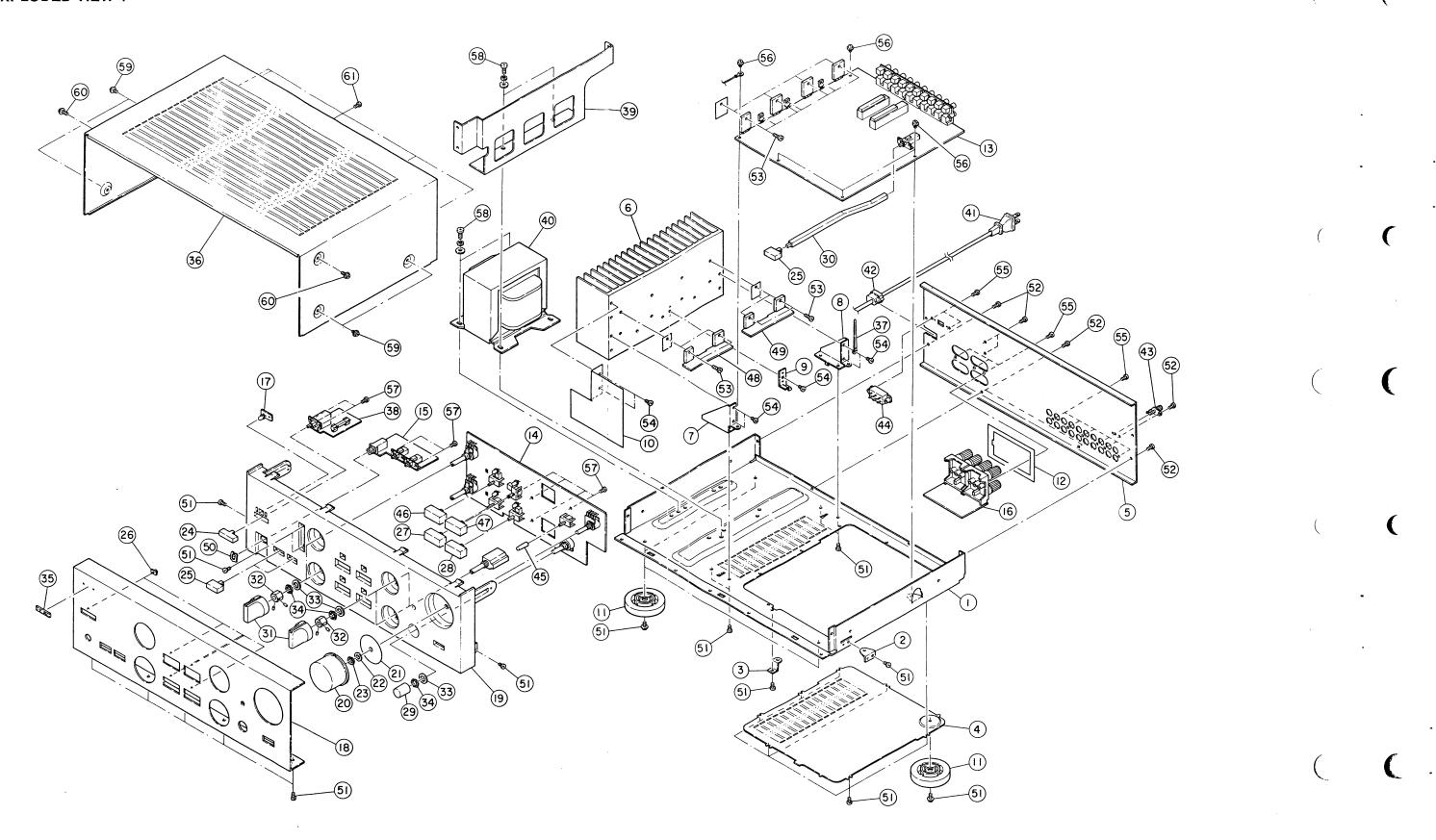
3. BLOCK DIAGRAM



A-X5000/A-X3000/A-X1000

4. EXPLODED VIEW AND PARTS LIST

EXPLODED VIEW-1



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EXPLODED VIEW-I (A-X5000)

REF.NO.	. PARTS NO.	DESCRIPTION	REMARKS
- - 2 - 3 - 4 - 5	*92601 35501 *92601 33800 *92601 34000 *92601 35200 *92601 36501 *92601 39501	PCB HOLDER (C) PCB HOLDER (A) BOTTOM COVER	
- 6 - 7 - 8 - 9	*9260135600 *9260133600 *9260133700 *9260133900		
- 0 - - 2 - 3	*9260113901 *9260137000 *9145084141	REAR PANEL SPACER	Ref. pages 12 & 14 Ref. pages 12 & 14
1-14 1-15 1-16	*9145086311 *9145086401 *9145086411	FRONT PCB ASSY [E-D, E-DF] FRONT PCB ASSY [EXCEPT E-D/DF] PHONE JACK PCB ASSY [E-D,E-DF] PHONE JACK PCB ASSY [EXCEPT E-D/DF] SPEAKER TM PCB ASSY [E-D,E-DF] SPEAKER TM PCB ASSY [US,C,GE,E,A,E-F] SPEAKER TM PCB ASSY [UK]	Ref. pages 13 & 14
- 7 - 8 - 9		POWER LED PCB ASSY FRONT PANEL C FRONT BASE	Ref. pages 13 & 14
-20 -2 -22 -23 -24	*9260139400 *9294005500 *9781800700	VOLUME KNOB ASSY EARTH SHILED PLATE WASHER, VR (ZN7) NUT, VR (ZN7) POWER BUTTON	
-25 -26 -27 -28 -29	*9260134100 *9260138700 *9260139700	SPEAKER BUTTON LED LENS PUSH BUTTON A (LOUDNESS) PUSH BUTTON A (SUBSONIC) BALANCE KNOB	
I -30 I -31 I -32 2-33 2-34		MM/MC LINKAGE SELECTOR KNOB KNOB ADAPTOR ASSY WASHER, VR (ZN9) NUT, VR (ZN9)	
I - 35 I - 36 I - 37 I - 38	*5801413200 *9260136600 *9788823059 Δ *9145086200 Δ *9145086210 Δ *9145086220		Ref. pages 13 & 14 Ref. pages 13 & 14 Ref. pages 13 & 14
	*9260136901 \$\Delta\$*9125085000 \$\Delta\$*9125085200 \$\Delta\$*9125085300 \$\Delta\$*9125085700 \$\Delta\$*9125085900	TRANS HOLDER POWER TRANS. [US,C] POWER TRANS. [E-D,E-DF] POWER TRANS. [GE] POWER TRANS. [UK,A] POWER TRANS. [E,E-F]	
I – 4 I	Δ*5350010700 Δ*9109025701 Δ*9109025901 Δ*9109026000	CORD, AC UL SPT-2 [US,C,GE] AC CORD, CEE CLASS2 [E-D/F/DF,E] AC CORD [UK] AC CORD [A]	

[US]:U.S.A. [C]:CANADA [E-D]:GERM, SWEDEN, NORWAY, DENMARK [GE]:GENERAL EXPORT [UK]:U.K. [A]:AUSTRALIA [E]:SWITZLD, NETHLDS, GREECE, AUSTRIA, SPAIN, ITALY, TURKEY [E-F]:FRANCE, BELGIUM [E-DF]:FINLAND

Parts marked with *require longer delivery time.

A-X5000

EXPLODED VIEW-I (A-X5000)

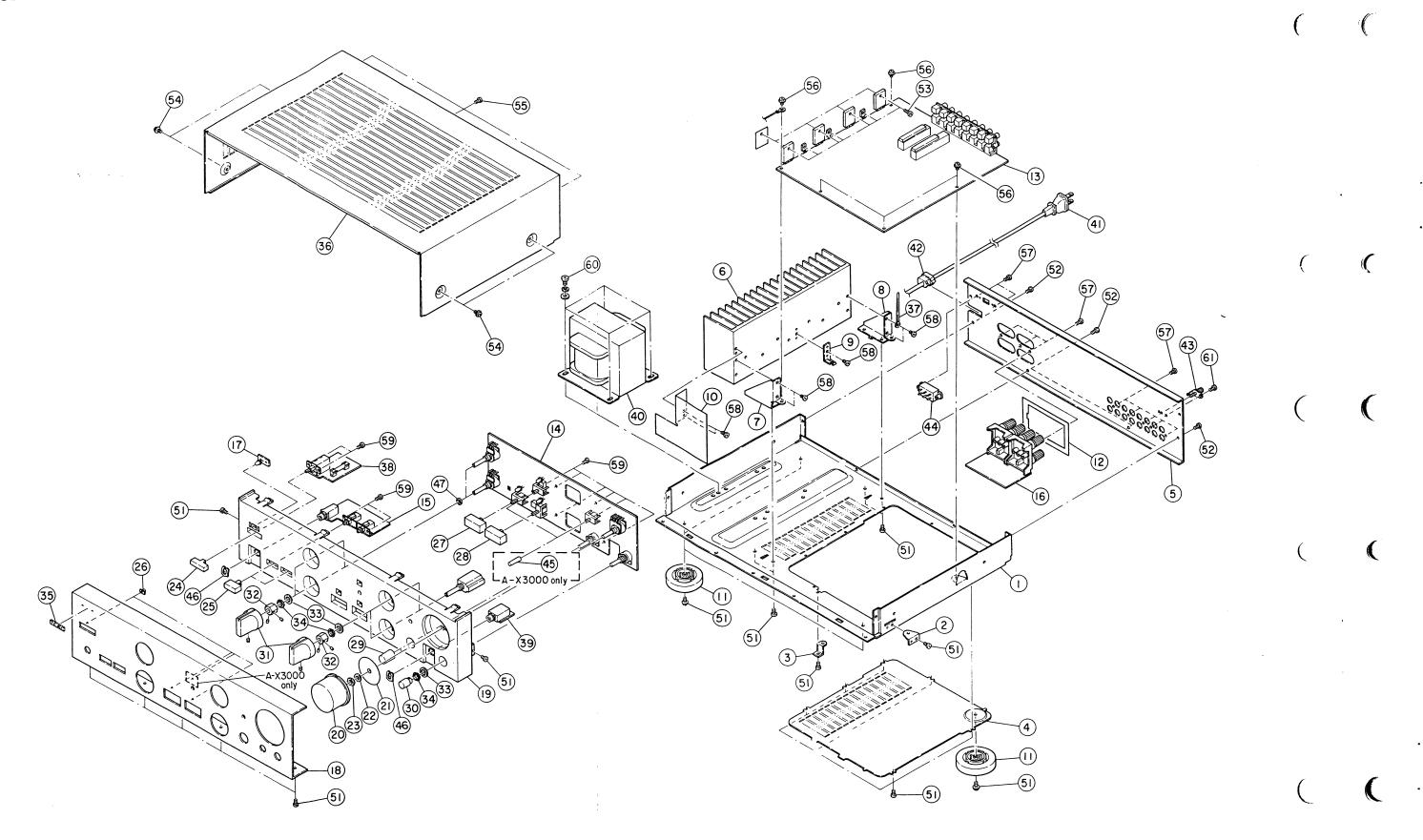
REF.NO.	PARTS NO.	DESCRIPTION	REMARKS
1-42	*9121000101	BUSHING, #2271	
1-43 J101	*9143289000		
1-44 S602	2∆* 5300918600	VOLTAGE SELECTOR, SDKGA4 [GE]	
1-45	*9260134300	PUSH BUTTON B	
1-46	*9260139600	PUSH BUTTON A (ADAPTOR)	
1-47	*9260134200	PUSH BUTTON A (SOURCE)	
I-48	*9145084200	TR., PCB-I ASSY	Ref. pages 13 & 14
I - 49	*9145084300	TR., PCB-2 ASSY	Ref. pages 13 & 14
I - 50	*5143248000	MOUNTING PLATE A	
1-51	*9783203008	SCREW, BTT-S M3X8	
1-52	*9783233008		
1-53		SCREW, BTT-B M3X12	
1-54	*9783213008		
1-55	*978361 <i>3</i> 008	SCREW, BTT-P M3X8 (BLK)	
1-56	*9783103006	SCREW, CAP-S M3X6	
I <i>-</i> 57	* 9783603008	SCREW, BTT-P M3X8	
1-58	*9783295010	SCREW, BTB-S M5X10	
I - 59	* 9783053006	SCREW, CAP-S M3X6 (BLK)	·
1-60	* 9783413010	SCREW, CAP-P M3X10 (BLK)	
1-61	* 9783593008	SCREW, C-TITE M3XIO (NI-BLK)	·

INCLUDED ACCESORIES

REF.NO.	PARTS NO.	DESCRIPTION	REMARKS
		OWNER'S MANUAL(M) A-X3000/A-X1000 OWNER'S MANUAL(M) A-X5000	

[US]:U.S.A. [C]:CANADA [E-D]:GERM, SWEDEN, NORWAY, DENMARK [GE]:GENERAL EXPORT [UK]:U.K. [A]:AUSTRALIA [E]:SWITZLD, NETHLDS, GREECE, AUSTRIA, SPAIN, ITALY, TURKEY [E-F]:FRANCE, BELGIUM [E-DF]:FINLAND

EXPLODED VIEW-2



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EXPLODED VIEW-2 (A-X3000/A-X1000)

REF.NO.	PARTS NO.	DESCRIPTION	REMARKS
2- I 2- 2 2- 3 2- 4 2- 5	*9260134000 *9260135200 *9260136301	MAIN CHASSIS PCB HOLDER (C) PCB HOLDER (A) BOTTOM COVER REAR PANEL [GE] REAR PANEL (A-X1000) [EXCEPT GE] REAR PANEL (A-X3000) [EXCEPT GE]	
2 - 6	*9260131200 *9260131301 *9260133600	HEAT SINK (A-X1000) HEAT SINK (A-X3000) HEAT SINK HOLDER (L)	
2- 8 2- 9 2-10 2-11 2-12	*9260133700 *9260133900 *9260136101 *9260113901 *9260137000	HEAT SINK HOLDER (R) PCB HOLDER (B) SHILED PLATE (A) FOOT ASSY,	
2-13	*9145084120	MAIN PCB ASSY (A-X1000) [E-D,E-DF] MAIN PCB ASSY (A-X1000) [EXCEPT E-D/DF] MAIN PCB ASSY (A-X3000) [E-D,E-DF] MAIN PCB ASSY (A-X3000) [EXCEPT E-D/DF]	Ref. pages 12 & 15 Ref. pages 12 & 15 Ref. pages 12 & 15 Ref. pages 12 & 15
2-14	*9145085101 *9145085111 *9145085121 *9145085131	FRONT PCB ASSY (A-X1000) [E-D,E-DF] FRONT PCB ASSY (A-X1000) [EXCEPT E-D/DF] FRONT PCB ASSY (A-X3000) [E-D,E-DF] FRONT PCB ASSY (A-X3000) [EXCEPT E-D/DF]	Ref. pages 13 & 16 Ref. pages 13 & 16 Ref. pages 13 & 16 Ref. pages 13 & 16
2-15 2-16 2-17	*9145085401 *9145085411 *9145085501 *9145085511 *9145085521 *9145085600	PHONE JACK PCB ASSY [E-D,E-DF] PHONE JACK PCB ASSY [EXCEPT E-D/DF] SPEAKER.TM.PCB ASSY [E-D,E-DF] SPEAKER.TM.PCB ASSY [US,C,GE,A,E,E-F] SPEAKER.TM.PCB ASSY [UK] POWER LED PCB ASSY	Ref. pages 13 & 17 Ref. pages 13 & 17
2-18 2-19 2-20 2-21 2-22	*9260134901 *9260135001 *9260135901 *9260135700 *9260139400	FRONT PANEL (A) (A-X1000) FRONT PANEL (B) (A-X3000) FRONT BASE VOLUME KNOB ASSY EARTH SHILED PLATE WASHER, VR (ZN7)	
2-23 2-24 2-25 2-26 2-27	*9260134400 *9260134100	NUT, VR (ZN7) POWER BUTTON SPEAKER BUTTON LED LENS PUSH BUTTON A (LOUDNESS)	
2-28 2-29 2-30 2-31 2-32	*9260134200 *9260134500 *9260134600 *9260136001 *9260139800	PUSH BUTTON A (SOURCE) BALANCE KNOB MIC KNOB SELECTOR KNOB KNOB ADAPTOR ASSY	
2-33 2-34 2-35 2-36 2-37	*9294005600 *9781800900 *5801413200 *9260135100 *9788823059	WASHER, VR (ZN9) NUT, VR (ZN9) NAME PLATE, TEAC BONNET WIRE CLAMPER	
2-38	Δ*9145085310 Δ*9145085320	POWER SW PCB ASSY (A-X1000) [US,C] POWER SW PCB ASSY (A-X1000) [E,E-D/F/DF] POWER SW PCB ASSY (A-X1000) [GE] POWER SW PCB ASSY (A-X1000) [UK,A]	Ref. pages 13 & 16 Ref. pages 13 & 16 Ref. pages 13 & 16 Ref. pages 13 & 16

[US]:U.S.A. [C]:CANADA [E-D]:GERM,SWEDEN,NORWAY,DENMARK [GE]:GENERAL EXPORT [UK]:U.K. [A]:AUSTRALIA [E]:SWITZLD,NETHLDS,GREECE,AUSTRIA,SPAIN,ITALY,TURKEY [E-F]:FRANCE,BELGIUM [E-DF]:FINLAND

Parts marked with *require longer delivery time.

EXPLODED VIEW-2 (A-X3000/A-X1000)

REF.NO	. PARTS NO.	DESCRIPTION	REMARKS
2 - 38		POWER SW PCB ASSY (A-X3000) [US,C] POWER SW PCB ASSY (A-X3000) [E,E-D/F/DF] POWER SW PCB ASSY (A-X3000) [GE] POWER SW PCB ASSY (A-X3000) [UK,A] MIC. J PCB ASSY	Ref. pages 13 & 16 Ref. pages 13 & 16 Ref. pages 13 & 16 Ref. pages 13 & 16 Ref. pages 13 & 17
TO TO	60 Δ*9 25083000 60 Δ*9 25083200 60 Δ*9 25083300 60 Δ*9 25083700 60 Δ*9 25083900	POWER TRANS. (A-X1000) [US,C] POWER TRANS. (A-X1000) [E-D/DF] POWER TRANS. (A-X1000) [GE] POWER TRANS. (A-X1000) [UK,A] POWER TRANS. (A-X1000) [E,E-F]	
Te Te	601 <u>A</u> *9125084000 601 <u>A</u> *9125084200 601 <u>A</u> *9125084300 601 <u>A</u> *9125084700 601 <u>A</u> *9125084900	POWER TRANS. (A-X3000) [US,C] POWER TRANS. (A-X3000) [E-D/DF] POWER TRANS. (A-X3000) [GE] POWER TRANS. (A-X3000) [UK,A] POWER TRANS. (A-X3000) [E,E-F]	
2-41	Δ*5350010700 Δ*9109025701 Δ*9109025901 Δ*9109026000 *9121000101	AC CORD UL SPT-2 [US,C,GE] AC CORD [E-D/F/DE,E] AC CARD [UK] AC CORD [A] BUSHING, #2271	
	101 *9143289000 602 <u>/</u> *5300918600 *9260134300 *5143248000 *9260167900	GND TERMINAL, YKD41-0004 VOLTAGE SELECTOR, SDKGA4 [GE] PUSH BUTTON B(A-X3000 only) MOUNTING PLATE (A) VR., COLLAR [GE, E only] A-X1000: #030580 and before A-X3000: #010510 and before	
2-51 2-52 2-53 2-54 2-55	*9783203008 *9783233008 *9783213012 *9783053006 *9783593008	SCREW, BTT-S M3X8 SCREW, BTT-S M3X8 (BLK) SCREW, BTT-B M3X12 SCREW, CAP-S M3X6 (BLK) SCREW, C-TITE M3X8(NI-BLK)	
2-56 2-57 2-58 2-59 2-60	*9783103006 *9783613008 *9783213008 *9783603008 *9783295010	SCREW, CAP-S M3X6 SCREW, BTT-P M3X8 (BLK) SCREW, BTT-B M3X8 SCREW, BTT-P M3X8 SCREW, BTB-S M5X10	
2-61	*9783233008	SCREW, BTT-S M3X8 (BLK)	

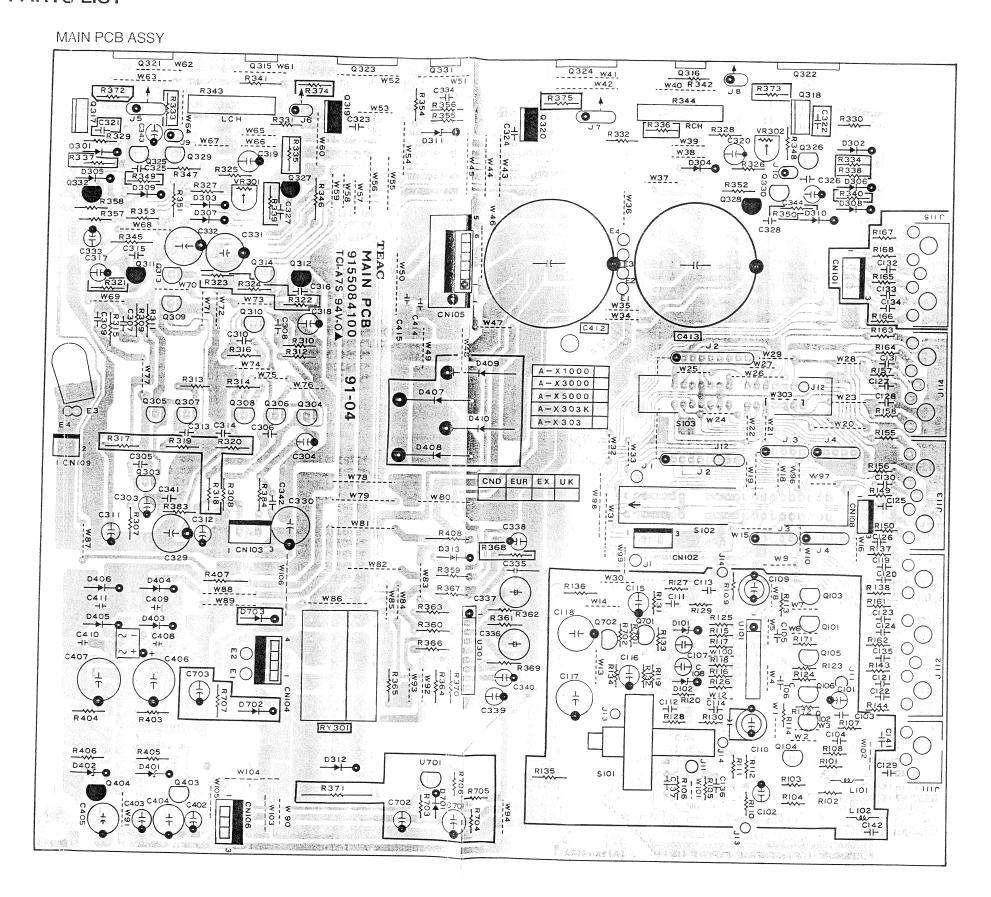
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Parts marked with *require longer delivery time.

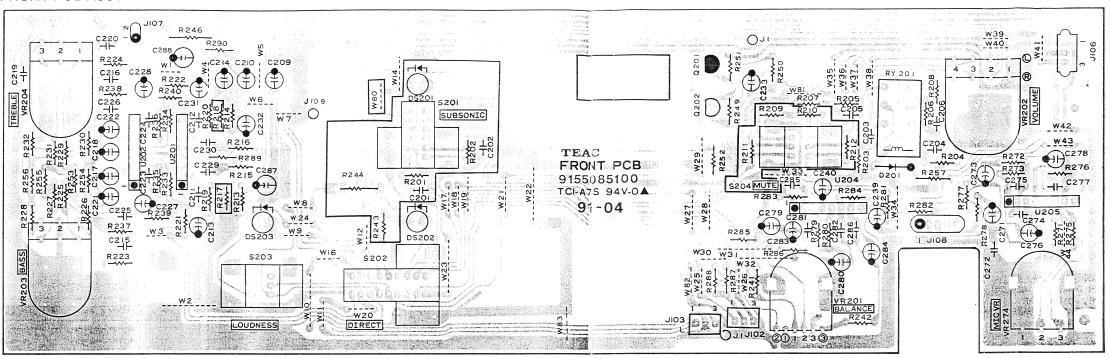
7

M-V2000/W-V 1000

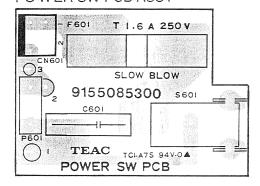
5. PC BOARDS AND PARTS LIST



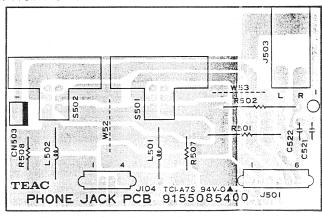
FRONT PCB ASSY



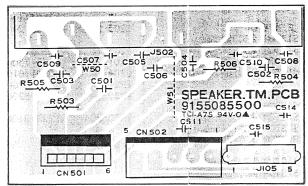
POWER SW PCB ASSY



PHONE JACK PCB ASSY



SPEAKER T.M PCB ASSY



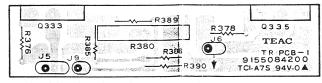
POWER LED PCB ASSY



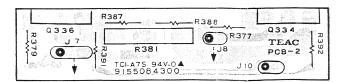
MIC. J PCB ASSY (A-X3000/A-X1000 only)



TR., PCB-1 ASSY (A-X5000 only)



TR., PCB-2 ASSY (A-X5000 only)



ELECTRICAL LIST

MAIN PCB ASSY (A-X5000)

	REF.NO	•	PAR	TS NO	. (DESC	RIPT	ON	****				-
	C406 40		*922	50841 50841 50841 90210	00 E	14 I N ARTI	PCH	TE	(A) F	C .I		/DF]	-
	C408-41 C412 41 C414 41 CN101 CN102	1 4 3 4 5 4	Δ911' Δ911' Δ911'	581932 730260 581890	20 C	., C	ERAM LEC ERAM PLUG	IIC (1200 IIC (3P	0.022 00UF/ 0.01U	2UF/ 1634 JF/50	100VK DOVKK N)RED		
(CNI 03 CNI 04 CNI 05 CNI 06		9143 9143 9143 9143	517100 525200 525400 530100 525100	0 C0	ONNE L NNC L NNC	CTOR CTOR PLUG PLUG CTOR	PLU 6P 5P	G, 4 [E-D [EXC	P ,E-D EPT	F]) E-D/D	F]	AND DESCRIPTION OF THE PERSON
[ONIO9 OIOI 102 O301-310 O311 O312	2	9165	02085	ות מ	NER ODE NER	DIOC , IN4 DIOC , IN4	E, 1148 Æ,	05AZ TP	6.2Y			AND CONTRACTOR OF THE CONTRACT
	0313 0401 402 0403–406 0407–410 0701 703		9165 9165	021900 022300	10 C	NER ODE, ODE,	, 1N4 D100 , 1N4 , PR6 , 1N4	E, 0 002 003	TP 05AZ	16Y			
1110	 2 3- 5 0 02 0 - 04		9143 9143 9143 9173 9173	310000 306000 305000 006320 312320	PI PI PI CO TR	AL N AL N AL, IL,	CK, CK, CK, 220U STOR	2P (6P (4P (H [E 2SC	YKC2 YKC2 YKC2 -D,E	21-24 21-22 21-22 1-22 1-DF1	131) 229) 226)		
99999	105 106 303-310 311 312 313 314 315 316		52320 91633 91630 91633 52307	008400 311520 012200 311600 182900	FE TR/ TR/ TR/ TR/	T.,2 ANSI ANSI ANSI ANSI	SK38 STOR STOR STOR STOR	1D 2SC 2SA 2SC 2SC	2240 1145 2705 1846	GR -O -O R			
Q: Q: Q: Q:	317 318 319 320 321 322 323 324 325 326		91633 91630 91633 91630 91633	11400 12100 12200 12700 09420	TRA TRA TRA TRA	12/1/ 12/1/ 12/1/ 12/1/	STOR STOR STOR STOR STOR	2 SC 2 SA 2 SC 2 SA 2 SC	3298 1306 3907 1516 1815	-Y -Y -0 -0 GR		de estados procesos de estados	
Q3 Q3	327 328 329 330 331 332 303	•	916307 91630	09920 11520 82900 11720 08900	TRA TRA	12N 12N	STOR	2 SC 1	1846 970 - [R 3L			
27 21 23	04 01 702 35 136 21 322 29-332	2 2 2	91633 91118 911410	00001	TRA R., R.,	212N 10N 10N	STOR STOR IFLAM IFLAM	2 SC2 MABL MABL	2878/ E 1/ E 1W	1 14W 1 1 68			
3 3 3	41 342 4 43 344 4 45 346 4 71 4 03 404 4	▲5 ▲9	24150 11410 11123	03100 01010 08000	R., R., R.,	CEM NON CAR	FLAM ENT FLAM BON : FLAM	0.22 MABL 2W 1	+0.2 E 1W K	20HM 1 100	1 5W		

MAIN PCB ASSY (A-X5000)

REF.NO.	PARTS NO.	DESCRIPTION
RY301 S101	△ 9114209060 5290015000 9135031600 5300918400 5300918500	R.,NONFLAMMABLE 1/2W 2.2 RELAY DE24D2-OT(M) PUSH SW, 2-2 SPX-04 SW.,SLIDE SSSR26 SW.,SLIDE SSSR24
\$102 \$103 U101 U301 U701	5301207000 5301206900 9167015010 9167008200 9163011420	ROTARY FLEX (B) SRBU06 ROTARY FLEX SRBU06 IC, M5218L IC, TA7317P TRANSISTOR DTAIL4ES TP.
VR301302	9112058000	SEMI-FIXED VR IK (B)

FRONT PCB ASSY (A-X5000)

REF.NO.	PARTS NO.	DESCRIPTION
	*9145086101 *9145086111	FRONT PCB ASSY [E-D,E-DF] FRONT PCB ASSY
	*9155086100 *9783603008	[EXCEPT E-D/DF] FRONT PCB SCREW, BTT-P M3X8
DS201-203 DS205 J106	9174012320 9174012320 9143261100	DIODE, IN4002 LED,5-333FY/HO YEL LED,5-333FY/HO YEL WIRE HOLDER, 3P SC-003 TRANSISTOR 2SAI015GR
S201 S202	5290015100 9135031300 9135031400	TRANSISTOR 2SC1815GR RELAY SVR24A PUSH SW 4-2 SPEC12HA02-TK PUSH SW 6-2 SPEC12HA04-TK PUSH SW 2-2 SPEC12HA01-TK
U201 202 U204	9167015010 9172018000	IC NIM 45651 D
VR203204	9172018100	TONE VR, 20KBX2

[US]:U.S.A. [C]:CANADA [E-D]:GERM, SWEDEN, NORWAY, DENMARK [GE]:GENERAL EXPORT [UK]:U.K. [A]:AUSTRALIA [E]:SWITZLD, NETHLDS, GREECE, AUSTRIA, SPAIN, ITALY, TURKEY [E-F]:FRANCE, BELGIUM [E-DF]:FINLAND

Parts marked with *require longer delivery time.

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POWER SW PCB ASSY (A-X5000)

REF.NO.	PARTS NO.	DESCRIPTION
	*9145086200	POWER SW PCB ASSY [E.E-D/F/DF]
	*9145086210	POWER SW PCB ASSY [US.C.GE]
	*9145086220	POWER SW PCB ASSY [UK,A]
	*9155086200	POWER SW PCB
	*9150013000	FUSE HOLDER, S-N5051 [US.C.GE]
	*9150014000	FUSE HOLDER, S-N5053 [EXCEPT US.C.GE]
C601	∆ 5267704000	SPARK, KILLER 0.0047UF250V
CN601	9143311000	CONNECTOR PLUG2P (5289-2A)
F601	₾5142191000	FUSE, 3.15A-250V T; MINI [EXCEPT US, C, GE]
F601 P601	△9150017000 5327009600	FUSE, 6A 250V SLOW [US,C,GE] TERMINAL LAPPING 2P

PHONE JACK PCB ASSY (A-X5000)

△9135031500 POWER SW

S601

REF.NO.	PARTS NO.	DESCRIPTION
	*9145086301	PHONE JACK PCB ASSY [E-D.E-DF]
	*9145086311	PHONE JACK PCB ASSY [EXCEPT E-D.E-DF]
	*9155086300	PHONE JACK PCB
CN503 J104 J501 J503	*9290000400 9143170000 9143262100 9143264100 9143248000	
	△9111232000 9135029000	R., CARBON 2W 430 POWER SW (R-3271)

SPEAKER TM PCB ASSY (A-X5000)

REF.NO.	PARTS NO.	DESCRIPTION
	*9145086401 *9145086411	SPEAKER TM PCB ASSY [E-D/DF] SPEAKER TM PCB ASSY [US,C,GE,A,E, E-F]
	*9145086420 *9155086400	SPEAKER TM PCB ASSY [UK] SPEAKER TM PCB
CN501 CN502	\$\frac{1}{2}9115818900 9143254000 9143301000 9143264100	C. CERA 0.01UF/500VK [E-D/DF] CONNE. PLUG 6P(52011-0610) CONNE. PLUG 5P [E-D,E-DF] WIRE HOLDER, 6P SC-006 [E-D/DF]
J502	9143302000	\$P.TERM.8P YKD310372 [EXCEPT UK]
R503-506	9143303000 9114033060	P.TERM.8P YKD310402 [UK] R.,NONFLAMMABLE 1/4W 22 OHM [E-D/DF]

POWER LED PCB ASSY (A-X5000)

REF.NO. PARTS NO. DESCRIPTION

D\$204	*9145086500 *9155086500 9174012320	POWER LED PCB ASSY POWER LED PCB LED,5-333FY/HO YEL
TR., PCB	-I ASSY (A-X50	000)
REF.NO.	PARTS NO.	DESCRIPTION
	*9145084200 *9155084200 9163312200 9163012700 9111010050	TR., PCB-I ASSY TR., PCB-I TRANSISTOR 2SC3907-0 TRANSISTOR 2SA1516-0 R., CARBON R-25 JFT 5.6
R380	₾5241503100	R., CEMENT 0.22+0.22 OHM 5W

TR., PCB-2 ASSY (A-X5000)

-	REF.NO.	PARTS NO.	DESCRIPTION	
	Q334 Q336 R381	*9145084300 *9155084300 9163312200 9163012700 \$5241503100	TR., PCB-2 ASSY TR., PCB-2 TRANSISTOR 29C3907-0 TRANSISTOR 25A1516-0 R., CEMENT 0.22+0.22 OHM 5W	_
- 1				

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MAIN PCB ASSY (A-X3000)

MAIN PCB ASSY (A-X3000)

REF.NO. PARTS NO.	DESCRIPTION	REF.NO.	PARTS NO.	DESCRIPTION	
*9145084130 *9155084100	EARTH PLATE (A) P.C.B.	\$102 \$103 \$102 103 U101 U301	5300918400 5300918500 5301206900 9167017300 9167008200	SW.,SLIDE SSSR24	
*9783103006 C105 106 9115800020 C406 407	C.,CERAMIC 1000PF/50VK YB	VR301302	9112058000	SEMI-FIXED VR IK (B)	
C414 415 △ 9115818900 CN102 9143171020 CN103 9143171000	C., ELEC 10000UF/63V C.CERAMIC 0.01UF/500VK YF CONNE.PLUG3P(B3B-EH-A)RED CONNECTOR PLUG, 3P	MAIN PCB ASSY (A-X1000)			
CNI 04 9143252000	•	REF.NO.	PARTS NO.	DESCRIPTION	
9143301000				EARTH PLATE (A) PCB	
D311 9166032201 D312 9165021900 D313 9165020850 D401 402 9166033201 D403-406 \triangle 9165021900	DIODE, IN4148 TP ZENER DIODE, 05AZI6Y	C105 106 C406 407 C408-411	9117259100		
J112 9143306000 J113 114 9143305000	DIODE, PR6003 PIN JACK, 2P (YKC21-2430) PIN JACK, 6P (YKC21-2229) PIN JACK, 6P (YKC21-2226) TRANSISTOR 2SC2240GR	C412 413 C414 415 CN102 CN103 CN104	9115818900 9143171020 9143171000	C., ELEC 6800UF/50V C., CERAMIC 0.01UF/500VK CONNE.PLUG3P(B3B-EH-A)RED CONNECTOR PLUG, 3P CONNECTOR PLUG, 4P	
Q311 312 9163012200 Q313 314 9163311600 Q315 316 5230782900 Q317 318 9163311400 Q319 320 9163012100	TRANSISTOR 2SA1145-0 TRANSISTOR 2SC2705-0 TRANSISTOR 2SC1846 R TRANSISTOR 2SC3298-Y TRANSISTOR 2SA1306-Y	CN105 CN105 CN106 CN109 D301-310			
Q321 322 9163311700 Q323 324 9163012300 Q325 326 9163309420 Q327 328 9163009920 Q329 330 9163311520	TRANSISTOR 2SC3281-0 TRANSISTOR 2SA1302-0 TRANSISTOR 2SC1815GR TRANSISTOR 2SA1015GR TRANSISTOR 2SC2240GR	D311 D312 D313 D401 402 D403-406	9166032201 9165021900 9165020850 9166033201 9165021900	DIODE, IN4002 DIODE, IN4148 TP ZENER DIODE, O5AZI6Y	
9331 5230782900 9332 9163011720 9403	TRANSISTOR 2SCIB46 R TRANSISTOR 2SA970-BL TRANSISTOR 2SC2235Y TRANSISTOR 2SA-965Y R., NONFLAMMABLE 1/4W 100	D407-410 JIII JII2 JII3 II4 Q303-310	9143306000	DIODE, PR3003 PIN JACK, 2P (YKC21-2430) PIN JACK, 6P (YKC21-2229) PIN JACK, 4P (YKC21-2226) TRANSISTOR 2SC2240GR	
R321 322 9114100710 R323 324 9111046050 R329-332 \triangle 9114033000 R341 342 \triangle 9114258000 R343 344 \triangle 5241503100	R., NONFLAMMABLE IW 62 R., CARBON R-25 JFT 150 R., NONFLAMMABLE 1/4W 22 R., NONFLAMMABLE 1/2W 220 R., CEMENT 0.22+0.22 OHM 5W	Q311 312 Q313 314 Q315 316 Q317 318 Q319 320	9163012200 9163311600 5230782900 9163311400 9163012100	TRANSISTOR 2SA1145-0 TRANSISTOR 2SC2705-0 TRANSISTOR 2SC1846 R TRANSISTOR 2SC3298-Y TRANSISTOR 2SA1306-Y	
R345 346	R., CARBON 2W 820 R., NONFLAMMABLE 1/4W 22	Q321 322 Q323 324 Q325 326 Q327 328 Q329 330	9163311800 9163012400 9163309420 9163009920 9163311520	TRANSISTOR 2SC3181-0 TRANSISTOR 2SA1264-0 TRANSISTOR 2SC1815GR TRANSISTOR 2SA1015GR TRANSISTOR 2SC2240GR	

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MAIN PCB ASSY (A-X1000)

REF.NO.	PARTS NO.	DESCRIPTION
Q332	9163011720	TRANSISTOR 25C1846 R TRANSISTOR 25A970-BL
Q404		TRANSISTOR 2SC2235Y TRANSISTOR 2SA-965Y
	9111810000	
R341 342 R343 344	9114258000 5241503100	R., NONFLAMMABLE 1/2W 220 R., CEMENT 0.22+0.22 OHM 5W
	9114250000 9111236000	
R407 408	9114033000 9114209000 5290014900	
\$102		SW., SLIDE SSSR26
		ROYARY FLEX SRBU06 IC, NJM 4565LD
U301 VR301302	9167008200 9112058000	IC, TA7317P SEMI-FIXED VR IK (B)

FRONT PCB ASSY (A-X3000)

REF.NO.	PARTS NO.	DESCRIPTION
D201-203	*9145085121 *9145085131 *9155085100 *9783603008 9165021900	FRONT PCB ASSY LEXCEPT E-D/DF FRONT PCB SCREW, BTT-P M3X8
J106 Q201 Q202	9174012320 9143261100 9163009920 9163309420 5290015100	WIRÉ HOLDER, 3P SC-003 TRANSISTOR 2SAI015GR TRANSISTOR 2SCIBI5GR
S202 S203 204	9135031400 9135031200 9167017300	PUSH SW 2-2 SPECI2HA01-TK
VR201 VR202	9172018200	BALANCE VR 150KMN VOLUME VR 100KBX2 TONE VR 20KBX2

FRONT PCB ASSY (A-X1000)

REF.NO.	PARTS NO.	DESCRIPTION	
		FRONT PCB ASSY [E-D,E-DF]	
	*9145085111	FRONT PCB ASSY [EXCEPT E-D/DF]	
	*9155085100	FRONT PCB	
	*9783603008	SCREW, BTT-P M3X8	
D201-203	9165021900	D100E, 1N4002	

FRONT PCB ASSY (A-X1000)

REF.NO.	PARTS NO.	DESCRIPTION
	9174012320 9143261100	LED,5-333FY/HO YEL WIRE HOLDER, 3P SC-003
Q201	9163009920	TRANSISTOR 2SA1015GR TRANSISTOR 2SC1815GR
		RELAY SVR24A
\$203 U201 202 U204	9135031200	
VR201 VR202 VR203204	9172018000 9172018200 9172018101	BALANCE VR 150KMN VOLUME VR 100KBX2 TONE VR 20KBX2 MIC VR RK16K1140034-TK10K

POWER SW PCB ASSY (A-X3000)

REF.NO.	PARTS NO.	DESCRIPTION
	*9145085340	POWER SW PCB ASSY [US,C]
	*9145085350	
	* 9145085360	POWER SW PCB ASSY [GE]
	* 9145085370	
	*9155085300	POWER SW PCB
	*0150017000	
	*9150013000	
	*9150018000	
	Va=a=4a=4a	[EXCEPT US,C,GE]
	*9783603008	SCREW, BTT-P M3X8
C601	△ 5267704000	SPARK, KILLER 0.0047UF250V
CN601	9143311000	CONNECTOR PLUG2P (5289-2A)
F601	Δ 5142190000	FUSE, 2.5A-250V(T) [EXCEPT US, C, GE]
5601	△ 9150016000	
P601	5327009600	
\$601	₾9135031500	POWER SW

POWER SW PCB ASSY (A-X1000)

REF.NO.	PARTS NO.	DESCRIPTION
	*9145085300	POWER SW PCB ASSY [US,C]
	*9145085310	
	* 9145085320	POWER SW PCB ASSY [GE]
	*9145085330	POWER SW PCB ASSY [UK,A]
	*9155085300	POWER SW PCB
	*9150013000	FUSE HOLDER, S-N5051 [US,C,GE]
	*9150018000	FUSE HOLDER, 2-N1152
		[EXCEPT US,C,GE]
	*9783603008	SCREW, BTT-P M3X8
C601	▲ 5267704000	SPARK, KILLER 0.0047UF250V
CN601	9143311000	CONNECTOR PLUG 2P(5289-2A)
F601	△ 5142188000	FUSE, 1.6A-250V(T) [EXCEPT US,C,GE]
	▲9150015000	FUSE,4A 250V SLOW [US,C,GE]
P601	5327009600	TERMINAL LAPPING 2P [E-D/F/DF, E]
S601	▲9135031500	POWER SW

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PHONE JACK PCB ASSY

REF.NO.	PARTS NO.	DESCRIPTION
	*9145085401	PHONE JACK PCB ASSY [E-D/DF]
	*9145085411	PHONE JACK PCB ASSY
		[EXCEPT E-D/DF]
	*9155085400	PHONE JACK PCB
	* 9290000400	MOUTING PLATE (A)
	*9783603008	SCREW. BTT-P M3X8
CN503	9143170000	CONNECTOR PLUG, 2P
J104	9143262100	WIRE HOLDER, 4P SC-004
J50I	9143264100	WIRE HOLDER, 6P SC-006
J503	9143248000	PHONE JACK (YKB21-5138A)
R501 502	∆ 9111232000	R., CARBON 2W 430
	9135029000	POWER SW (R-3271)

SPEAKER TM.PCB ASSY

REF.NO.	PARTS NO.	DESCRIPTION
	*9145085501	SPK.TM.PCB ASSY [E-D.E-DF]
	*9145085511	SPK.TM.PCB ASSY
		[US,C,GE,A,E,E-F]
	*9145085521	SPK.TM.PCB ASSY [UK]
	*9155085500	SPEAKER TM.PCB
	*9783613008	SCREW, BTT-P M3X8 (BLK)
C514 515	★ 9115818900	C.CERAMIC 0.01UF/500VK YF
	9143254000	CONNEC.PLUG6P (52011-0610)
CN502		
J105	9143264100	WIRE HOLDER, 6P SC-006
15.00	01.47700000	
J502	9143302000	SP.TERM.8P YKD310372 [UK]
	9143303000	SP.TERM.8P YKD310402
		[EXCEPT UK]
R503-506	9114033000	R., NONFLAMMABLE 1/4W 220HM [E-D,E-DF]

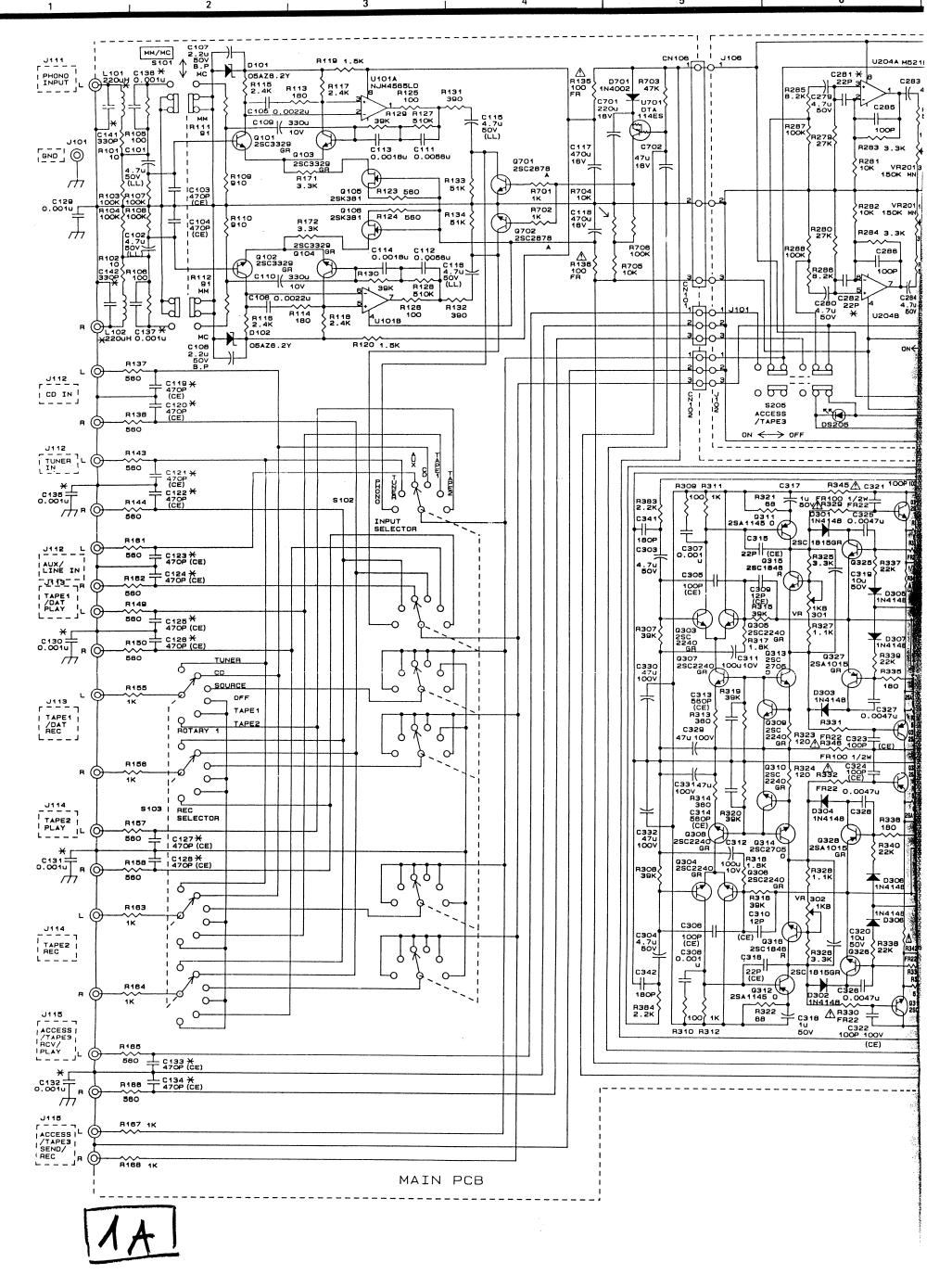
MIC. J PCB ASSY

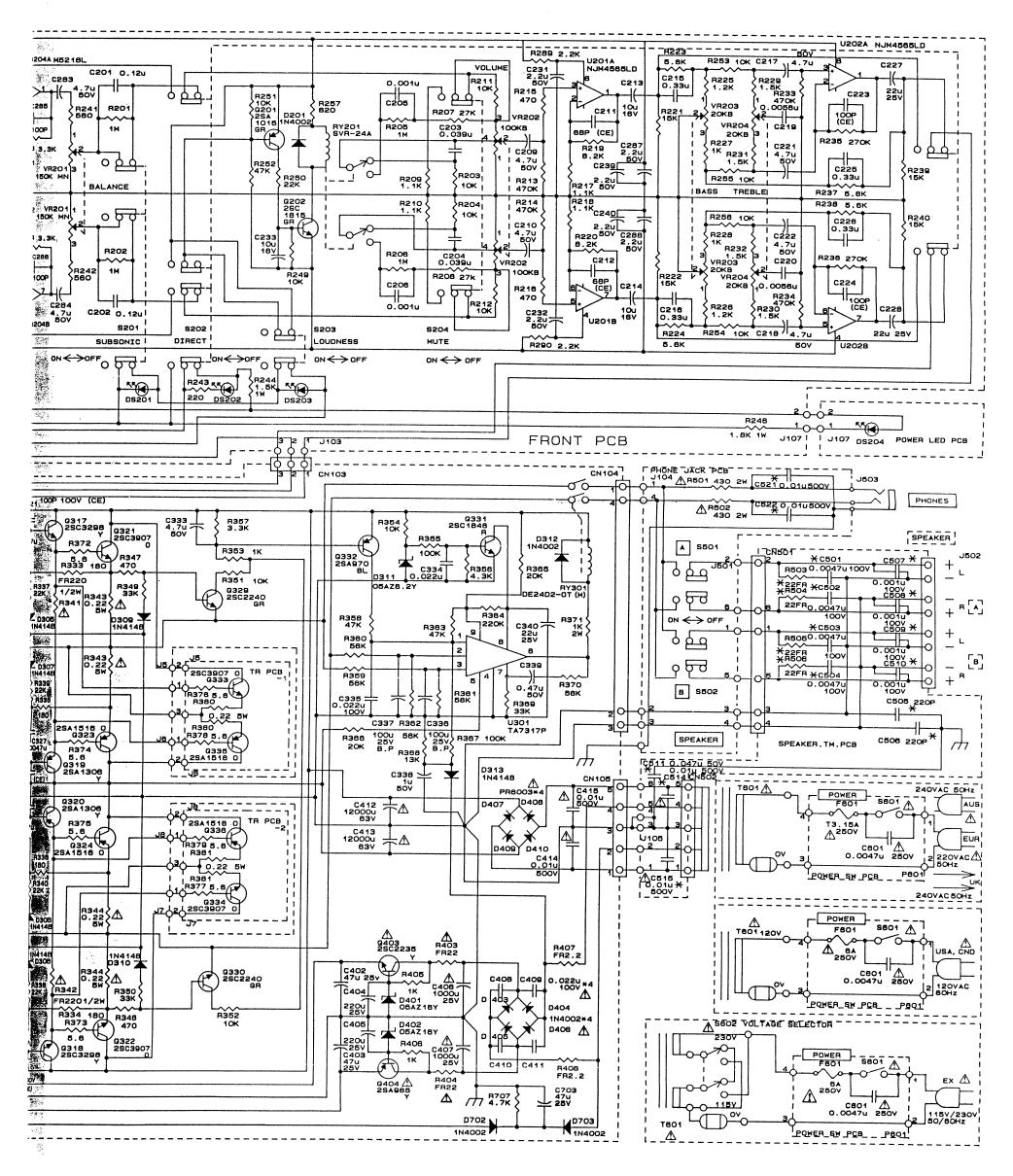
REF.NO.	PARTS NO.	DESCRIPTION
	*9145085200	MIC. J PCB ASSY
	*9155085200	MIC. J PCB
	*9290000400	MOUTING PLATE (A)
J201	9143281000	MIC JACK (YKB21-5008)

POWER LED PCB ASSY

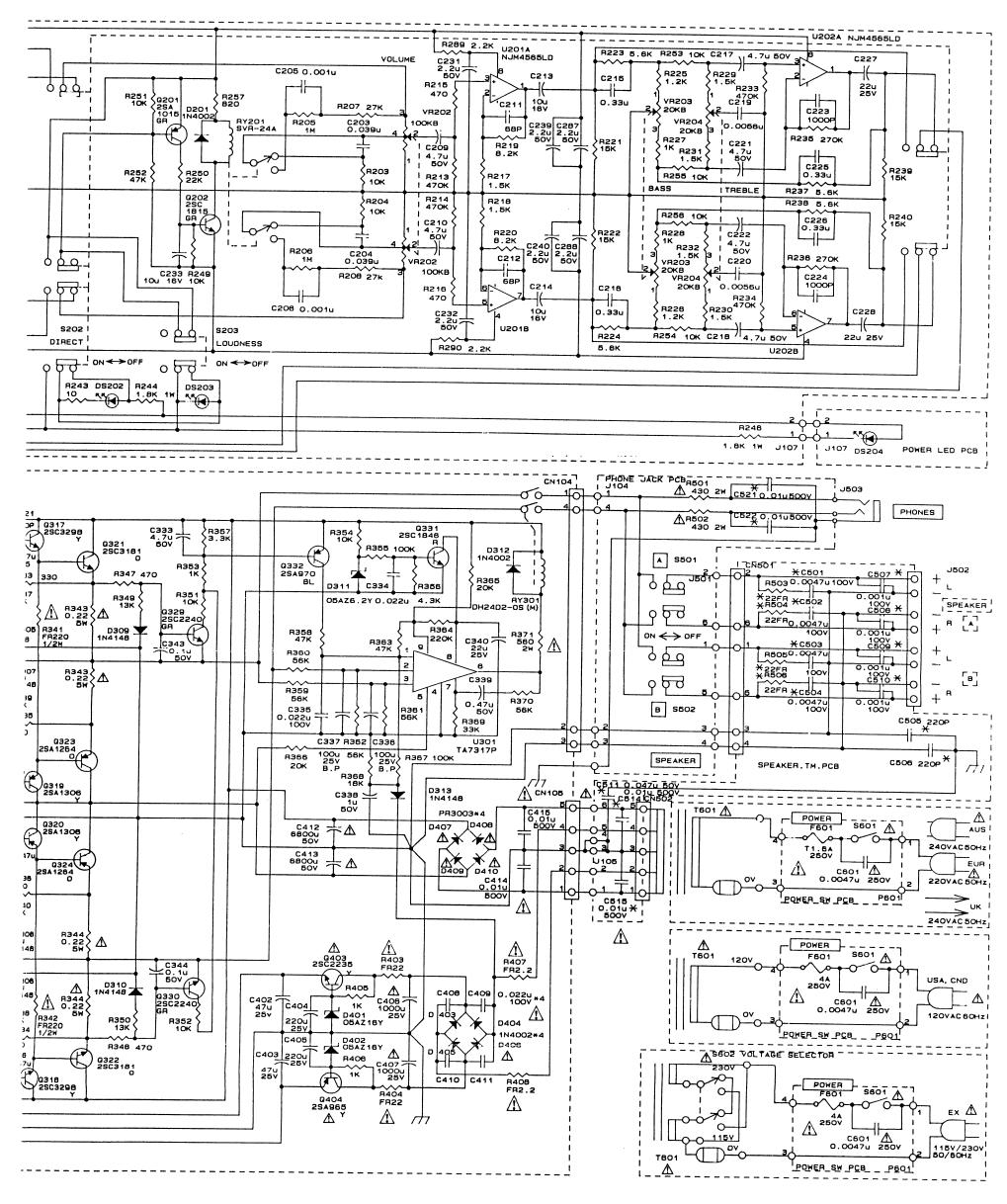
REF.NO.	PARTS NO.	DESCRIPTION
DS204	*9155085600	POWER LED PCB ASSY POWER LED PCB LED,5-333FY/HO YEL

[US]:U.S.A. [C]:CANADA [E-D]:GERM, SWEDEN, NORWAY, DENMARK [GE]:GENERAL EXPORT [UK]:U.K. [A]:AUSTRALIA [E]:SWITZLD, NETHLDS, GREECE, AUSTRIA, SPAIN, ITALY, TURKEY [E-F]:FRANCE, BELGIUM [E-DF]:FINLAND









** NOTE **

NUTE

ALL RESISTORS ARE 1/6W CARBON FILM RESISTOR UNLESS OTHERMISE LISTED.

RESISTANCE UNIT 18 IN OHN. K-1,000 H-1,000,000

1/28: METAL OR METAL DXIDE 1/2M. 1/28: 90.10 1/2M.

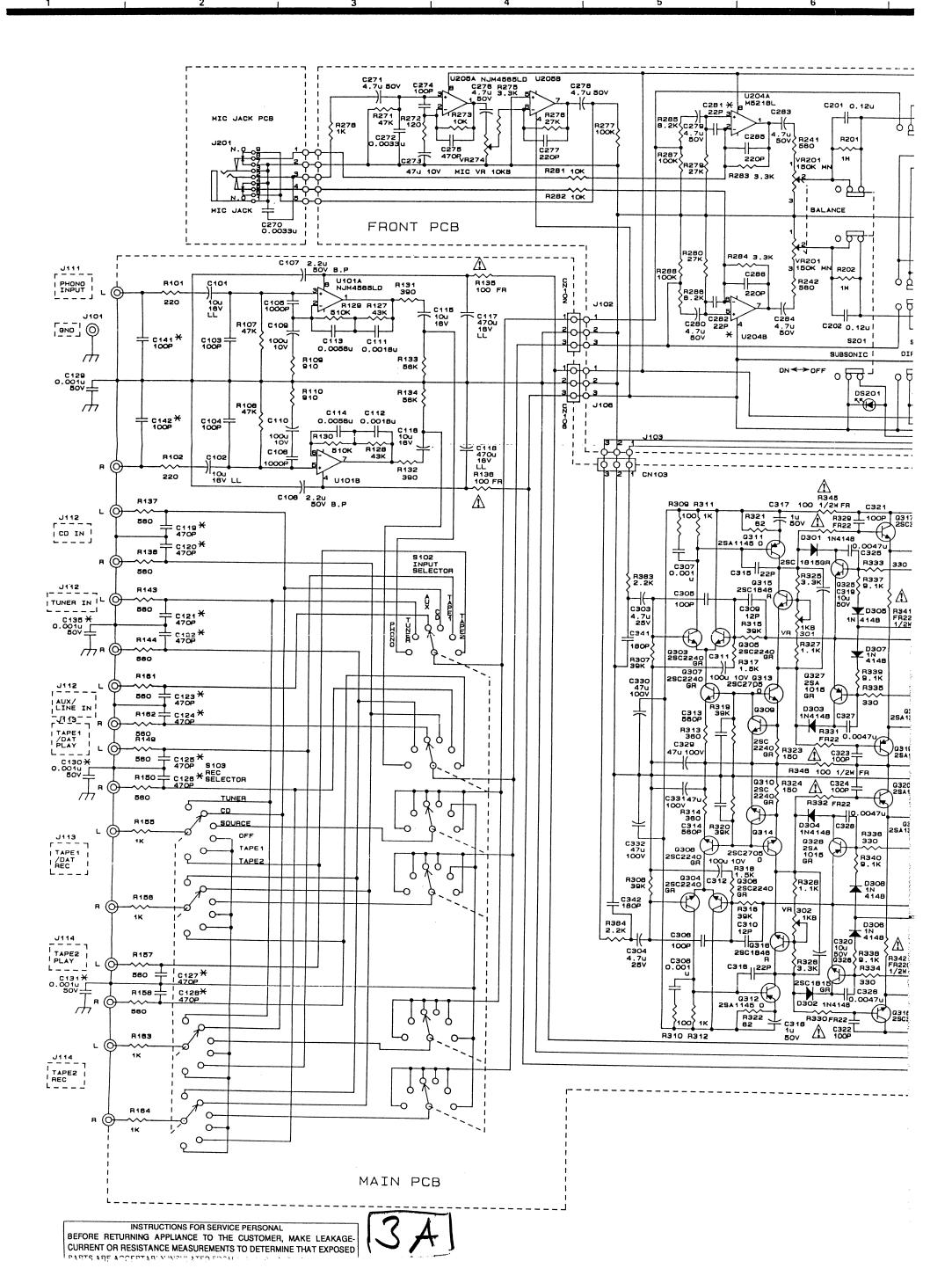
1/29: FURSE RESISTOR 1/2M. 1/2M: 00M: CEPHENT RESISTOR 10M.

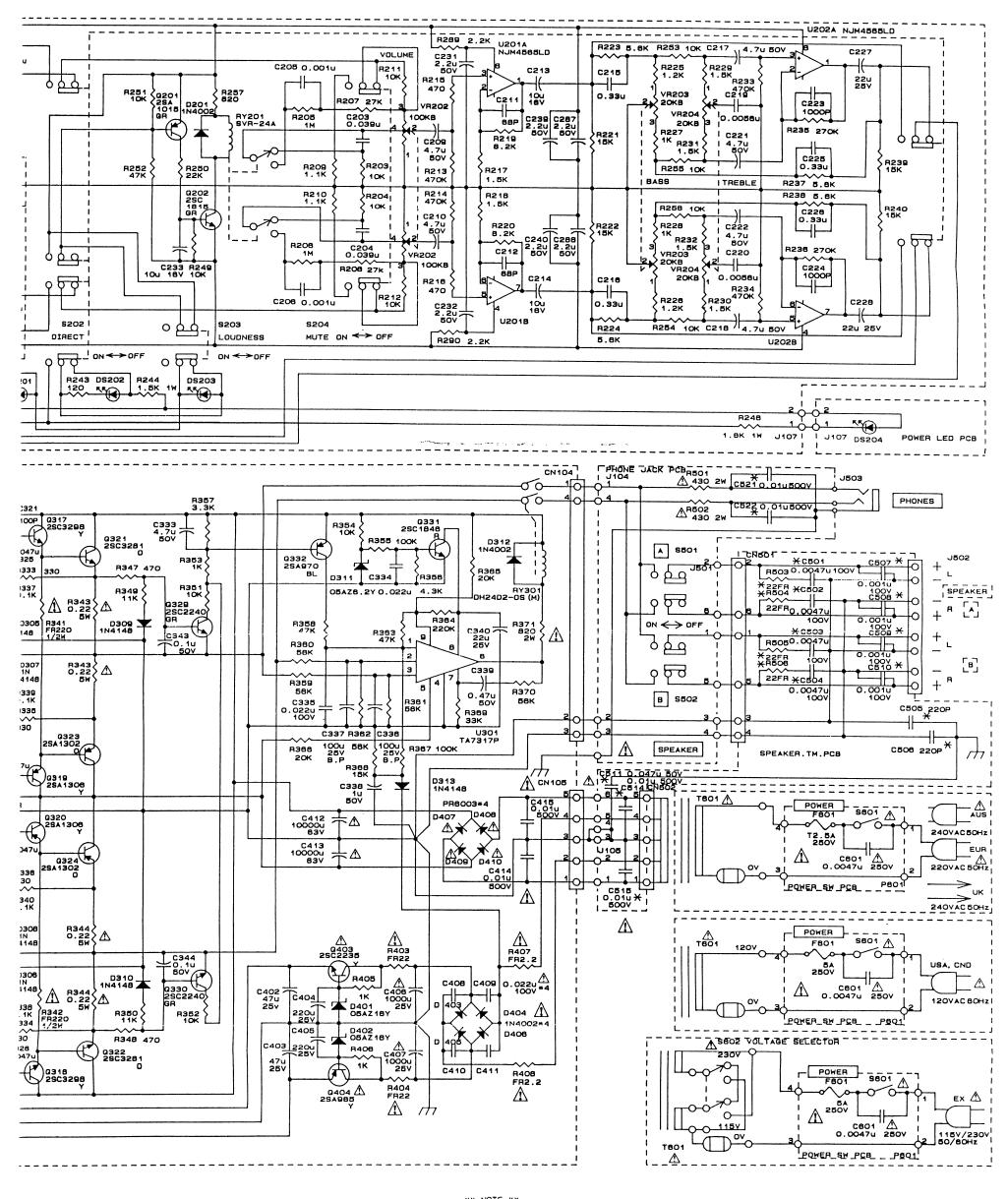
ALL CAPACITORS ARE 50V CEPHING CAPACITOR UNLESS OTHERMISE LISTED.

CAPACITANCE LESS THAN 1 ARE EXPRESS IN UNI. AND GREATER THAN 1 IN pf.

** IMPORTANT SAFETY NOTICE **

COMPONENTS IDENTIFIED BY \bigwedge MARK HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY. MMEN REPLACING ANY OF THESE COMPONENTS USE ONLY MANUFACTURER'S SPECIFIED PARTS.





** NOTE **

1. ALL RESISTORS ARE 1/6H CARBON FILH RESISTOR UNLESS OTHERMISE LISTED, RESISTANCE UNIT IS IN OWN. K-1,000 H-1,000,000

1/2R: METAL OR METAL OXIDE 1/2M. 1/2R: SOLID 1/2M.

1/2F: FUDE RESISTOR 1/2M. 1/2M: CEMENT RESISTOR 10M.

2. ALL CAPACITORS ARE 50V CERANIC CAPACITOR UNLESS OTHERMISE LISTED.

CAPACITINGE LESS THAN 1 ARE EXPRESS IN MI. AND GREATER THAN 1 IN pf.

*** IMPORTANT SAFETY NOTICE **

COMPONENTS IDENTIFIED BY MARK HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY.

MEN REPLACING ANY OF THESE COMPONENTS USE ONLY MANUFACTURER'S SPECIFIED PARTS.